

ABSTRACT

A framework which allows a user to build a general purpose process flowsheet that represents a model of a process and by an interpreter generates from the flowsheet the model which can be used to execute applications selected from simulation, estimation and optimization. The framework includes various editors including a flowsheet editor and simulation, estimation and optimization activity editors. The framework also includes a task scheduler which commands simulation, estimation and optimization input generators to collect information from the flowsheet database and model library files and present them to the solution engine for solving the system of flowsheet models and equations. The single process model can be used in a number of on-line and off-line applications and the applications may be either dynamic or steady state. The process may be a batch process or a continuous process or any other kind of process.